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#### THE BIRDS OF POINT PELEE.

BY P. A. TAVERNER AND B. H. SWALES.

(Continued from page 96.)

184. \*Anthus pensilvanicus.—American Pipit.

Doubtless of regular occurrence on the Point, both spring and fall, but owing to the seasonal occasions of our trips, we have noted it but once, October 15, 1906, when a few scattered individuals were observed along the top of the eastern sand dunes.

185. \*Mimus polyglottos.—Mockingbird.

May 20, 1906, while Swales and Fleming were walking in along the road on the west side of the Point, on the homeward trip, a Mockingbird was flushed opposite a newly planted orchard. Fleming secured the bird, which proved to be a male with well developed testes. It is now in his collection. Search was made for a possible mate, but without avail. (Auk XXIII, 1906, p. 344.)

186. \*Galcoscoptes carolinensis.—Cathird.

Common, with but one exception, on all May, August and September trips. August 15 and 16, 1908, it was surprisingly scarce, but one being noted the latter date. It was still present in some numbers October 14, 1906.

187. \*Toxostoma rufum.—Brown Thrasher.

Common on all spring visits except, as would be expected, that of March, 1907. May 1-3, 1908, their combined chorus was one of the features of the trip. This, despite low temperature and a heavy fall of snow, combined with a bitter gale blowing in off the lake.

The Brown Thrasher is considerable of a mimic, and on the Point has acquired some of the call notes of the Yellow-breasted Chat, sev-

eral times leading us merry chases after what we thought was that bird.

August 15-16, 1908, Brown Thrashers were but fairly common and probably represented the breeding population of the Point. The year previous, from the 24th of the same month on, they were much more abundant and, usually from the first of September to the appearance of the Sharp-shin flight, the species has been abundant. As soon as the hawks come the great bulk of them suddenly thin out. We have met with but little evidence that the Accipitres really catch any great numbers of them, but they are so harried and worried that they keep well within their favorite strongholds in the jumper beds that grow between the red cedars near the end of the Point. When the Sharp-shins are about in any numbers, it is with great difficulty that the Thrashers can be made to forsake this scrub. When they are finally forced to break cover, they make a quick dash to the next nearest clump, flying low, barely skimming the ground and immediately bury themselves in its innermost recesses. At such times they seem much less afraid of man than of hawks. This bird seems to remain considerably later in the fall on the Point than in adjoining Michigan stations. October 14, 1906, we were surprised to note at least twenty individuals at a considerably later date than anything we can find in our Detroit notes.

## 188. \*Thryothorus ludovicianus.—Carolina Wren.

This is another interesting species upon which Point Pelee bases its claim to originality among the Canadian faunas. The Carolina Wren is found regularly and commonly here, and in but few other localities in the Dominion. In August, 1901, Lynds Jones found the species on East Sister Island (Will. Bull., 1901, pp. 70-71), but it was not until the fall of 1905 that it was added to the list of mainland birds. September 5 of that year Klugh took one and saw another. The next day four were observed or taken, and others noted the 7th, 8th, and 11th. Among these were two juveniles of different ages, and apparently belonging to separate broads. The youngest had the nestling down still attached to the plumage, and was evidently raised on the Point (Auk XXIII., 1906, p. 105). In 1906, we noted three May 20 and took one in the same locality, where they had been seen the preceding fall. May 24 Saunders found them on the mainland just east of the base of the Point. In the fall they were noted September 1, 2, 3, and 19, and October 14. In 1907 single birds were heard or seen March 9, May 31, June 1, and August 29 and 30. In 1908 we found them scattered all over the end of the Point, from the Cross-Road out and singing vigorously August 15-16. we had observed them but in a limited area on the east side near the end of the Cross Road.

It will be seen from this that the species is well established on the

Point. They frequent the densest jungle and are more often heard than seen. They flit from brush to brush just ahead of the excited collector bent on establishing an incontestable record, in a most provoking manner, leading him through mud-holes, tangle and bracken, keeping just out of gun shot, and usually out of sight, but enticing him on with explosive calls of encouragement. They frequent the higher branches of the trees to a greater extent than any other of our wrens and are often observed at considerable elevations. The song we have most frequently heard in both fall and spring could be written "pre—o—o—o." The first sylable uttered quickly and with a silvery roll, and the "o's" distinctly separate, with decided intervals between, and delivered with an explosive quality like the sound of large drops falling from a height into a still pool below. The whole uttered hurriedly and bubblingly, in the same metre as the song of the House Wren. This song is perfectly distinct, and like nothing else to be heard in the Transition Fauna woods. As before stated, August 15, 1908, the Carolina Wrens sang far more freely than we have heard before. In repertoire they are as versatile as a Thrasher and a Catbird combined and rival, if not surpass, the Chat in ability to make "funny noises."

#### 189. \*Troglodytes aëdon.—House Wren.

Common on all May visits and to be found in almost all kinds of localities, though perhaps the brush grown fences in the neighborhood of Gardner's farm buildings were the most favored. But few were noted during the early days of September, 1905, though by gradual increase they became common the 14th. Common all through September, 1908, and until October 14-15, when a number were noted. Not as many as usual seen August 24-September 6, 1907, and more were listed August 15-16, 1908. It is evident from this that the migrant birds arrived about the last of August and first of September, reaching their maximum the middle of the later month.

#### 190. \*Olbiorchilus hiemalis.—Winter Wren.

Noted but once in the spring, May 1-2, 1908, when single birds were noted each day. In 1905, the first fall birds were noted September 14 and 15, the last days of our stay. In 1906 they were present when we arrived, September 15, and became almost common by the 17th, after which their numbers dwindled, though a couple were seen the 21st, when we departed. This last day one fellow became much interested in our tent and camping equipment. It explored the former several times thoroughly, searching every crevice. It examined our methods of packing, and sampled the crumbs of our commissary, gleaning from the cracks of the table, and seemed generally pleased with himself and us. Finally it flew to a neighboring brush pile and scolded us as we took down the tent and piled the

things into the wagon. Eight were seen October 14, 1906. Of course none have been seen during the August trips.

## 191. \*Cistothorus stellaris.—Short-billed Marsh Wren.

May 14, 1905, Saunders found a small colony of about half a dozen birds in the marsh bordering the dyke and secured one specimen. Frequent search since has failed to reveal the species again, but, as it is extremely local in distribution and retiring in habit, it could be easily overlooked in the vast extent of marsh to be surveyed.

#### 192. \*Telmatodytes palustris.-Long-billed Marsh Wren.

A common species on all the marshes. They had hardly arrived in force May 13, 1905, nor the 21st of the same month of the succeeding year. May 31, 1907, however, they were present in numbers, and May 1-3, 1908, Swales found a number that had been driven out of their low lands by the high water up into the bushes among the tree trunks of the higher levels, where they conducted themselves in the unaccustomed habitat much after the manner of Winter Wrens. We have found them more or less common, though secretive, and rather hard to find on all fall visits. Then they seem partial to most circumscribed areas of marsh, and keep well down in the cat-tails, seldom venturing far in flight and uttering but the most commonplace and noncommital notes. Our latest date is October 15, 1906, when six were observed, though Gardner reported the presence of Wrens in the marsh several times during the winter of 1906-07. However the specific designation of these winter Wrens remains in doubt.

#### 193. \*Certhia familiaris americana.—Brown Creeper.

Not noted in the spring until 1908, owing to the lateness of date of our visits. May 1 of the above year one was observed, and at least fifteen the 3d. Not noted the fall of 1905, until September 15, when one was seen and another the next day, the date of our departure. In 1908 the species put in an appearance September 17, and from then on until we left, the 21st, from three to eight were listed each day. They were common October 15, 1906, and even more numerous the 29th of the same month the previous year. Probably some remain through the winter.

#### 194. \*Sitta carolinensis.—White-breasted Nuthatch.

This species, though met with on nearly all visits, has never been very common. Usually a few scattered individuals have made the day's record. Our date of greatest abundance was October 14, 1906, when ten were listed. Likely but few breed on the Point as our May dates are meager. Our fall dates are conflicting, but seem to indicate that the migrants arrive irregularly from the last of August to the middle of September.

#### 195. \*Sitta canadensis.—Red-breasted Nuthatch.

The erratic appearance of this species in Southeastern Michigan and neighboring Ontario stations has been commented on by the writers elsewhere (Auk XXIV, 1907, p. 147). It is usually a scarce migrant, though some years very abundant. We have met with it in spring but once, May 31 and June 1, 1907, when eight and seventeen were noted respectively. This was a very unusually late spring, which accounts for their presence at this time. It was also the spring following their great fall abundance of 1906, which may have had something to do with their rather unusual numbers. In 1905 but three were noted October 29. The following year, when it will be remembered reports of their exceeding abundance came in from many localities, they were present and common September 1 to 3, and on our return trip from the 15th to 21st they were still more numerous. The culmination of their abundance, however, was reached October 14 and 15, when they were easily one of the most abundant birds on the Point and found in all conceivable localities except the marshes. Especially were they numerous in the waste fields near the end of the Point, where they crowded the dead and dry mullein stalks in such numbers as to be perceptible from some distance as blue masses. We have met with the species at the Point at no other times, but Saunders reports it as "very common September 8 to 10, with the Kinglets," and Keays noted from two to four daily from September 17 to 21, 1901.

### 196. \*Penthestes atricapillus.—Chickadee.

March 9-10, 1907, the Chickadee was common. One noted May 14, 1905, and another June 1, 1907. These are our only spring dates. September 5 and 7, 1905, and October 29 of the same year constitute our only fall dates. Our experience with the species at Detroit leads us to believe that it is more migrational than is generally supposed. They are common through the winter, but about the first of April the great bulk of them depart, leaving but a few scattered summer residents behind. They appear again about the end of August, though not becoming generally common until well into October. They are a good bird to listen for when searching for fall warblers. Their cheery voice can be heard some distance and the following of it up often leads one to a nice little bunch of other species with which they are fond of keeping company.

## 197. Regulus satrapa.—Golden-crowned Kinglet.

Met with but twice in the late fall, October 29, 1905, and October 13-15, 1906.

#### 198. \*Regulus calendula.—Ruby-crowned Kinglet.

We have noted this species but once in spring, May 13-14, 1905, when but a few were seen. In the fall it has been rather irregular.

September 8, 1965, Klugh noted a few individuals, and the next year it put in an appearance September 17, increasing to common on the 20th, remaining so until our late visit, October 14, when there were still numbers present. The Ruby-crown has quite a distinctive habit of flitting its wings while pausing for a moment between its short flights from bough to bough in the trees. By this little trait it can often be recognized from the Golden-crown, when phases of plumage render it almost indistinguishable from that species. It usually reserves its vocal efforts for the silent northern woods; but once in a while it does favor us Southerns with a few extracts of its part in the wild northern symphony; and we are surprised at so much richness of tone, sweetness of melody and strength of voice combined in so small a compass.

#### 199. \*Polioptila carulca—Blue-gray Gnatcatcher.

May 14, 1905, the Blue-gray Gnatcatcher was common on the Point. We did not meet it in spring again until May 31, 1907, when two were noted August 25. They became common the next day, remaining fluctuatingly so until September 2, after which they gradually thinned out to the time of our departure the 6th. The morning of the 5th we were stationed on the lookout tower at the end of the Point when we saw a couple flying outwards, working from tree to tree, and at last vanishing in the last bush towards the final sandspit. There was a heavy head wind blowing, bathing the shores with a line of breakers, against which Swallows and Martins were making steady and calm headway. Evidently the Gnatcatchers tried the passage also, for a few minutes later we saw them returning down the wind from over the water as if unable to make it. They came in, facing the wind and blowing backwards. When they reached the land they turned a little off the wind, increasing their efforts at the same time. The result was that they held their own in the direction in which the wind was blowing, but were carried gradually over sideways to the shelter of some heavier hard-wood trees, into which they plunged and, we presume, rested. We mention this litle episode, as it may have some bearing on the present "Beam Wind" theory of migration. We have often taken advantage of this very same maneuver in rowing a boat across the course of a heavy wind or current. Hold the boat a little more than three parts facing the stress and work just hard enough to keep from being swept away and you will be surprised at the rapid progress made in a direction at right angles to that of the antagonistic force, and at a remarkably small expenditure of labor. That birds should take equal advantage of so obvious a principle is not surprising, and it may be one of the explanations of their apparent preference for migrating with a "Beam Wind." It would have an additional advantage also of blowing their feathers down closer to the body at all times and avoiding the disconcerting occasional accident of stray scurries of wind blowing up in under the plumage and disarranging it, a proceeding that it is easily seen would be uncomfortable in all cases, and probably dangerous in many.

### 200. \*Hylocichla mustelina.-Wood Thrush.

Common May 14, 1905, and one May 20, 1907. Not seen at other times in spring. In fall we noted one September 13, 1905, and one each day of September 1, 2, and 19 and 20, 1906. In 1907 but two were seen September 29. The comparative rarity of this species is rather peculiar. There is plenty of promising looking ground, but it does not seem to be occupied. They likely migrate through in considerable numbers, but we have never managed to be there the right dates for this. The summer resident population of Wood Thrushes on the Piont is evidently scanty.

## 201. \*Hylocichla fuscescens.-Wilson's Thrush.

Fairly common on nearly all visits. May 14, 1905, two seen, May 21, 1906, several; May 30-June 1, 1907, several each day. Usually common through the first part of September. Last seen in 1905, September 13, and one individual lingered the succeeding year as late as the 20th. In 1907 we saw them almost daily from August 24 to September 2, after which none were noted, though we remained until the 6th.

#### 202. \*Hylocichla alicia.—Gray-cheeked Thrush.

This does not appear to be quite as common a species as the next on the Point. The two birds are, however, so much alike in appearance that it takes considerable attention and good opportunity in the way of light to separate them. As it is not always practicable to follow up and scrutinize every thrush flushed in the woods error in the records of these two species may at any time creep in. A few of either species might easily escape notice among numbers of the other. In spring we have positively identified this species but once, May 30-June 1, 1907, when we estimated their numbers at 25 and 6 respectively, and took specimens for full verification of so late a date. This spring was, however, so abnormally late that nothing in that line was any great surprise. May 21, 1906, we saw several that we thought might be referable to this species, though optical and other conditions precluded exact determination of this point. September 8, 1907, they put in their first appearance, becoming common at once together with the Olive-back and with them varying daily from none to common, irregularly to the date of our departure the 16th. In 1906 they were not to be found among the large numbers of Olive-backs present September 1-3, though we looked carefully for them. On the return visit, September 15-21, we listed from one to several each day. The 18th a large number of Olive-backs came in and with them the Gray-cheek, and became very common for that day and the next. In 1907 two doubtful birds were noted September 4.

#### 203. \*Hylocichla ustulata swainsoni.—Olive-backed Thrush.

Common May 14, 1905, and a few seen May 21, 1906. The late dates of May 30-June 1, 1907, saw them quite common, about equaling in numbers the preceding species. In September, 1905, the first arrived the 6th, becoming very common the 8th. It disappeared that night, but gradually increased again to the 13th, when it fairly swarmed all over the place, then slowly decreased in numbers to the end of our stay, the 16th. Our September 1-3 trip of 1906, found it already very common. On our return trip, September 15, it was not observed until the 17th, became common again the next two days, and again dwindled to one on the 21st, when we left. In 1907, in fall, but two birds were noted, September 4, whose exact specific status could not be determined. This and the preceding species are so nearly alike in outward appearance as to be readily mistaken one for the other. With good light and fair opportunity, however, the ochraceous suffusion on the side of the face of this species as contrasted with the ashy appearance to the same parts of the other consitute a recognition mark that is not readily mistaken. The difference between them seems much more marked in live than in dry museum specimens. These two species suffer greatly during the Sharp-shinned Hawk flights as mentioned before. During the periods of this Hawk's abundance little scattered piles of thrush feathers can be found every here and there through the underbrush.

## 204. \*Hylocichla guttata pallasii.—Hermit Thrush.

October 29, 1905, and October 14-15, 1906, are the only times we have been at the Point during the migration period of the Hermit Thrush. On both occasions they have been common.

#### 205. \*Planesticus migratorius.—American Robin.

Common on all May dates. March 9-10, 1907, the first relay had already come and passed on as Gardner reported having seen several the 7th, which were certainly not in evidence to us. They were irregularly common during the early days of fall, but became abundant later when the wild grapes were ripe. During our early September dates they have usually been rather scarce for so common a bird, but October 29, 1905, and October 14-15, 1906, they were present in great numbers. Along in the afternoon of the latter date we observed a flock of this species start out from the end of the Point, headed across the lake for the Ohio shore.

206. \*Sialia sialis.—Bluebird.

May 13-14, 1905, the Bluebird, though common on the main-land. was not seen on the Point at all. May 21, the following year, but few were noted. March 9-10, 1907, however, they were already present in considerable numbers, though they had not as yet put in an appearance at Detroit, from whence we came. May 31, 1907, we saw but one on the Point. In early fall our experience has invariably been the same—Bluebirds scarce, rare, or absent on the Point proper, while common on the adjoining main-land. October 29, 1905, however, they were there in numbers amply sufficient to make up for deficiencies at other times. They were spread all over the end of the Point, and in along the eastern shore, as far as the cotton-wood trees extended. Here numbers were feeding on the bare sand with the Prairie Horned Larks. It was in the waste clearings beyond Gardner's place, however, that the greatest numbers were found. Here they were in flocks almost as dense as blackbirds. When flushed from the ground they generally flew to some of the numerous clumps of bushes growing here and there in the open and, when they lit and were viewed from a little distance, they were in sufficient numbers to give to the whole bush a decidedly blueish cast. We are informed by several witnesses that the winter of 1906-7 they wintered on the Point in some numbers and through the winter of 1907-8, Gardner wrote us several times of the presence of about six individuals in the neighborhood of his place. We have never known the species to winter with us about Detroit.

## SUPPLEMENTARY LIST.

Species added to list since publication of the foregoing pages.

207. \*Uria lomvia.—Brünnich's Murre.

The occurrence of this species upon the Great Lakes constitute almost as great a problem as that of the great migratory irruption of the Sand Grouse in Europe. Normally of a purely Arctic habitat, its most southern breeding ground being Cape Wolstenholme, at the entrance to Hudson Bay, it has at irregular intervals in the late fall appeared on our inland lakes in great numbers. The first record flight occurred in the winter of 1893-4. Since then the last of November and first of December has seen greater or less numbers of them nearly every year on the lower lakes. The interesting part of it is that of all that so reach us none seem to survive more than a week or so. Once out of their northern waters they all seem to starve to death and are picked up on the shores in all stages of emaciation. We have various records of the species on the Detroit River from the great flight of 1896, and undoubtedly at that time they occurred at the Poinf, but of that we have no record. The last of November, 1907, a number were taken on the Detroit River, and December 10 we received a bird from Gardner at the Point. He informs us that several were seen on the lake in the morning. In the afternoon but one remained, and it appeared weak and unable to fly. The next morning it was found dead and washed ashore on the beach. For further details of the occurrence of this bird see Fleming.—Proc. 1Vth. Introl Cong., 1905, pp. 528-43.

#### 208. \*Larus delawarensis,—Ring-billed Gull.

Probably owing to the practical difficulty of separating this species from the larger Herring Gull the Ring-bill had, up to the fall of 1907, escaped our observation. However, that year, August 25 and to the time of our departure, September 6, we found them very common. Several were taken and proved to be juvenile birds, and all seen seemed to be in the same plumage. If anything it was rather more numerous than the Herring Gull, with which it constantly associated. We had every opportunity to study the two species together and found that about the only practical distinction that could be made between them in life was that of size, and then only when both were present and close enough together to allow of close comparison. The young Herring Gull having the same appearing ring on the bill as this species renders that mark of little reliability in juvenile birds. The tail of the former in immature stages is practically all fuscus, while in the Ring-bill it is mostly light at the base with a broad bar across near the end. This, however, is only observable from the upper surface, and so is seldom available as a field mark. August 15-16, 1908, we found quite a number already at the Point, so they must return early in August from their breeding grounds on Lake Huron,

#### 209. Merganser serrator.—Red-breasted Merganser.

Under the head of American Merganser we stated that undoubtedly both species of *Merganser* occurred, but that *americanus* was the only one of which we had so far received authoritative data. Since that writing, however, we have been enabled to add this species definitely to our list, and at the same time added another interesting episode to our Pelee experiences.

May 1-3, 1908, the weather was very severe for that time of the year. A strong gale prevailed through the 1st and 2d, with a heavy snow storm through the afternoon of the latter date. The water, was very high and the outer end of the Point was submerged for a distance of about half a mile, its outer tip bathed in raging surf, dashing great masses of feathery spume high in the air. Just around the end of the Point and just beyond the line of the most troubled water lay a mixed flock of ducks and grebes not more than fifty feet from the

shore. The seas swirling about the point were piling in here heavily on the shore, but undisturbed by the neighboring commotion and the wild tossing of the water under them they sat motionless on the surface, each with its head under its wing, and to all appearances fast asleep. Under cover of the heavy juniper scrub fringing the shores, Swales was enabled to creep up to the sleeping flock within easy gun range, and, with field glasses, watch them at close quarters. There were about twenty-five male Red-breasted Mergansers, a few Ruddys and Buffleheads in the flock, and with them, but keeping well bunched together, were a much larger number of Horned Grebes. While watching them the wonder grew as to how, while motionless, seeming sound asleep, they managed to keep the same relative distance from shore without being washed in on the beach on the one hand or carried away by the drift of the water on the other. For several hours, or as long as we observed them, they lay here, tossing about on the rough water, apparently oblivious to the whole world, but remaining stationary as though anchored in

This same spring the species was unusually common on the Detroit River and Lake St. Clair during late April and early May. It is usually a rather scarce species, but during these dates more were brought in to the taxidermist's establishments of the city than during any previous year of which we have any record.

LIST OF SPECIMENS RECEIVED, CONFIRMATORY OF EYE OR OTHER IDENTIFICATIONS GIVEN IN FOREGOING PAGES.

Larus philadelphia—Bonaparte's Gull.

Juvenile male taken by Taverner, August 15, 1908. About six were seem at that time, all in same phase of plumage.

Harelda hyemalis.—Old-squaw.

Male in full winter plumage, picked up dead on the shore, March 31, 1908, by Gardner and sent to us.

Rallus elegans .- King Rail.

Two specimens received from Gardner April 22, 1908.

Cathartes aura.—Turkey Vulture.

Received one bird from Gardner, April 24, 1908. See Auk, XXV, 1908, p. 328. It had been killed not more than two days previous.

## CONCLUSION AND SUMMARY.

Since writing the introductory and opening pages of this list, over a year has passed, and considerable data has been gathered that there seems no practical way of including under its proper heading. Some of the most important of this we have included

in supplementary lists and some of it falls naturally under this head. The remainder contains little of great importance, taken alone, and will have to wait a possible future publication, when a further accumulation of data warrants a reconsideration of the whole matter.

Since the last trip mentioned in the introduction, May 31, 1907, was made, three more visits have been paid to the Point, as follows:

August 24, 1907, in company with W. E. Saunders, Norman A. Wood, and J. S. Wallace, we established camp in the old situation marked "Camp Coues" on the accompanying map. This year, however, camping was not all roses, as it had been previous seasons. The days were beautiful, but the nights were rendered unbearable by the presence of clouds of mosquitoes. Ner was there any escape from them. They were of an unusually late and voracious brood, and smoke that made the eyes run and breath gag but stimulated their energy. Mr. Wood was the Moses who led us out of our difficulty, and we are afraid that without him camp would have been immediately struck until after frest. Acting upon his example and advice, we betook ourselves to a neighboring barn and, climbing up in the mow, laid ourselves down in the sweet new hay. Though great gaping cracks opened in the walls all around us there was not a single mosquito there. We think this worthy of mention as it may be the means of helping some other poor field collector to much needed rest. Mr. Wood is authority for the statement that there are never any mosquitos in hay mows, and as far as our experience goes we heartily endorse it and pass the good word along.

August 28, Saunders and Wallace left us and Swales departed the 31st, leaving Wood and Taverner, who remained until September 6. During this time we worked all parts of the outer Point except the marsh lands; paying special attention to the extreme end and the migrations therefrom. The shooting season opened the 1st of September and we examined the bags made by the hunters, questioned them closely, and received some good material in the way of specimens and notes from them. We were on the ground rather earlier this fall than we

had been before. The migrations were late in starting, and consequently we were able to observe occurrences of the earlier migrations that we had heretofore missed. We judge that at this time the migrations were about a week later than normal and this should be remembered in connection with the dates of the preceding list. The great bulk of the earlier wader migrants were still present when we arrived, and we found considerable numbers of other species that we had not previously noted or had seen but few stragglers of in the fall. On previous visits most of the shore birds observed had been juveniles but this season we found a good many adults among them.

The warblers as a family had not yet come down in their usual fall abundance up to the time when we left. Some species, it is true, were unusually common, such as the Mourning Warbler and Water-Thrush, but at no time were there any such numbers of many species of this family as were noted September 4 and 5, 1905, or 1 to 3, 1906.

On the whole, gauged by the results obtained, this was one of the most important trips we have made and substantiated in striking manner many of our ideas of the migrational importance of Point Pelee. Of this more anon.

The next visit to the Point was made by Swales and Wallace. May 1-3, 1908. The weather was most unseasonably cold and stermy during these days. A heavy gale blew all the first two days with a blinding snow storm the forenoon of the latter. The waters of Lake Erie were very high and a good part of the Point was under water. This had a most interesting effect on the marsh dwellers who were driven from their usual habitats well into the wooded sections. Rails were found running around among the red cedars near the end of the Point and the Marsh Wrens invaded the haunts of the Winter Wrens. On the marsh itself, where usually is seen nothing but an all-covering and all-concealing mass of reeds and cat-tails was open water over which Gallinules and Coots paddled and cackled and laughed in the broad light of day, laying bare some of their most hidden life-history secrets. The Bitterns, both American and Least, unable to reach the muddy bottom or find stable footing in their usual haunts, were congregated along the steep shores by the road and here, unincumbered by the impedimenta of vegetable growth, could be watched with ease as they pursued the tenor of their daily economy unsuspicious of prying eyes. Warblers were scarce, a few only of the early ones being observed. This was also true at that date at adjoining localities. The late, cold spring held nearly everything back and species usually expected early in the month were not noted until the middle, and then, in many cases, rushed through so quickly as to give us but the most fleeting view of them as they passed. On the other hand Brown Thrashers were very common and when the morning of the 3rd broke bright and clear, their combined chorus, punctuated by the clear whistling of the Cardinals and the occasional chuckle of the Chat, made an impression not soon to be forgotten. The presence of a number of Whipcorwills, considering the condition of the weather, was a surprise. The Whipoorwill is a much more hardy bird than its close relative, the Nighthawk, and is much more often seen in early spring and late fall; but in spite of this we were hardly prepared to find so many of them during this early-April-like weather. Their usual fastnesses of the jumper tangle had been invaded by water and many of them were forced out into the most unlikely places, even into the middle of the waste clearings, among the dried grasses and mullein stalks toward the end of the Point.

Another trip was made, August 15-16, 1908, by Wallace and Taverner. We planned in this case to study the Point avifauna just before the begining of the migrations, but in this were disappointed, as the migrations were then already well under way. A number of warblers were already present, among them the Canadian, Mourning and the Water-Thrush, and another Prairie Warbler was added to our list of Pelee specimens. The flycatchers were already in force, the Pewees almost in their full fall numbers and the Kingbirds gathering. Bobolinks were passing over towards the south; also flocks of Cowbirds and Red-winged Blackbirds. Great flocks of Swallows, Barn, Bank, Tree and Rongh-winged, were congregating at the end of the Point, and the 15th a flock of one hundred Martins was seen resting on the ridge of the fish house near the

end of the Point. Next day they were gone, having presumably continued their way. The east beach was not thoroughly worked and not many waders were seen. With the exception of the Spotted Sandpiper all seen under conditions by which age could be judged were adults. The Sanderling taken proving to be an old bird whereas heretofcre on seasonally later dates, all were juvenile. The most conspicuous feature, however, was the number of Carolin Wrens singing. Up to this date we have found them in but one limited locality, but these days they were all over the end of the Point. On the whole, this visit was considerable of a surprise. Though nothing very startling was observed, the data obtained on the early beginnings of the fall migration were of considerable interest.

These last three trips added considerably to our knowledge of Point Pelee, especially in its migrational aspects and has verified many of our previous ideas, and suggested others before not thought of. One fact they have accentuated in a marked degree.—the "wave" like form of many of the migrations. Indeed we almost feel tempted to generalize by saying that nearly all species can at one time or another of the season be found here in such numbers as to constitute a "wave". In such manner we have so far noted the following species that are not usually regarded as gregarious; nor would we care to so designate them even after our experience with them here. Every indication goes to show that they are not drawn together as social collections, but rather by a community of interest, and their gatherings are rather the result of each individual, moved by common conditions, making for the same crossing place of the lake and arriving simultaneously. Detail of such occurrences can be obtained under their proper specific heads in the list.

Sharp-shinned Hawk.—Sept. 1882; Sept., 10-17, 1905; Sept. 15-22, 1906.

Northern Flicker.—Sept. 14-18, 1905; Sept. 15-22, 1906; Aug. 26-Sept. 6, 1907.

Whipcorwill.—Sept. 13, 1905; May 1-3, 1908.

Ruby-throated Hummingbird.—Sept. 1-3,1906.

Kingbird.—Aug. 24-29, 1907; Aug. 15-16, 1908.

Wood Pewee.—Sept. 4-8, 1905; Sept 1-3, 1906; Aug. 24-Sept. 6, 1907; Aug. 15-16, 1908.

Yellow-bellied Flycatcher. —Sept. 9-13, 1905; Aug. 29, 1907. Least Flycatcher.—Aug. 28-29, 1907.

Orchard Oriole.—All May trips excepts that of 1908.

Baltimore Oriole.—All May trips except that of 1908.

Black-poll Warbler.—Sept. 3, 1906.

Water-Thrush.—Aug. ?7.-Sept. 2,1907.

Red-breasted Nuthatch.—Oct. 14, 1905.

Gray-checked Thrush.—Sept. 11-13, 1905.

Olive-backed Thrush.—Sept. 13-15, 1905; Sept. 1-3, 1906.

Robin.—Oct. 29, 1905.

Bluebird.—Oct. 29, 1905.

Besides these, that have occurred in such absolute numbers as to warrant a loose designation of "flight" to their occurrence, we have at various times found the following so relatively numerous that, taking into consideration their usual rarity, we are almost justified in including them in the above list.

Duck Hawk.—Seen on nearly all September trips.

Pigeon Hawk.—Sept. 17, 1901; May 13, 1905; Sept. 16-19-21, 1906; Aug. 31, 1907; May 1, 1908.

American Goshawk.—Oct. 21-Jan. 18, 1906.

Philadelphia Vireo.—Sept. 19-20, 1906.

Blue-headed Vireo.—May 14, 1905.

Cape May Warbler.—Sept. 13, 1905; Aug. 29-Sept. 2, 1907.

Connecticut Warbler.—Aug 28-31, 1907.

Mourning Warbler.—Aug. 28-31,1907.

Of other species that are known and expected to travel in flocks we have met the following in unusual numbers.

Blue Jay.—Oct. 14, 1906.

Blackbirds, all species.—Aug. 27-30,1907; all Sept. dates, and especially Oct. 15, 1906.

Crow.—Oct. 14, 1906.

Bobolink.—Sept. 5, 1905; Sept. 18, 1906; Aug. 27-31, 1907; Aug. 15, 1908.

Purple Martin.—Aug. 26-Sept. 5, 1907; Aug. 15, 1908.

Barn Swallow.—Aug. 15-16, 1908, and all early Sept. dates.

Bank Swallow.—Aug. 15-16, 1908, and all early Sept. dates.

Rough-winged Swallow.—Aug. 24-27, 1907; Aug. 15-16, 1908.

Purple Finch.—Sept. 19-Oct. 14, 1906.

The above classification is, of course, loose and arbitrary, but is sufficient, and is mainly intended to call attention to certain facts pointing to the importance of Pelee as a migration route that might otherwise pass unobserved in the general list. Another fact, not strictly ornithological, but bearing on this same subject, struck us as of peculiar interest. Each September we have witnessed great gatherings of the common Milkweed or Monarch Butterfly, Anosia plexippus. They gather on the trees in hundreds. September 12, 1905, we found a cottonwood on the east beach whose lee was so covered with them as to appear red instead of green. In 1907 we noted in company with them large numbers of Papilio cresphontes and P. troilus. The Monarch is a well known migrant, but the other two are not, as we are aware, supposed to migrate at all. However all of these species were almost invariably observed flying in a most determined manner out the point; and on fine days there was a constant stream of them starting out from the end of the Point and making their way towards the opposite shore, following the same route taken by the majority of the bird migrants.

Another fact that has been well brought out by the work on the Point among the waders, the departure of the adults before the juveniles. The earlier birds of this class in the fall are almost invariably old birds, the birds of the year arriving generally just as the former are leaving or sometimes after they are gone. Thus, the only time we have found adult Sanderling and Semipalmated Plover in fall was Aug. 15, 1908. Both these species, previous years, but seasonally late in date, have been common but all have been juveniles. Up to the end of August the greater percentage of the Black-bellied Plover seen are old birds. From the first of September on, such are rare and the juveniles common.

It is also evident that the fall migrations commence a good deal earlier than is usually suspected. The first movement in this direction to be detected is the arrival of the first shore birds beginning with the Solitary Sandpiper the end of the first week in July. By the middle of the month the Yellow Warblers begin to thin out. With us at Detroit this is all the migration phenomena we observe until the end of August when the first of the warblers arrive. Any increase in the number of birds previous to this date is generally ascribed to their greater activity after their nidification duties are over. At Pelee, however, it is evident that by the middle of August several species of land birds have come down from further north. Aug. 15-16, 1908, the following migrants of this class were present.

Kingbird, gathering and already in usual numbers.

Olive-sided Flycatcher.—two:

Wood Pewce.—in large numbers.

Bobelink.—Passing down the Point in flocks of five hundred daily.

Purple Martin.—large flock.

Barn Swallow

Bank Swallow

Tree Swallow

Rough-winged Swallow

In large flocks and passing out towards the end of the Point.

Black and white Warbler.—several daily.

Water-Thrush.—One.

Prairie Warbler.—One taken.

Mourning Warbler.—One taken.

Canadian Warbler.—Several.

That these early dates indicate earlier migrations at Pelee than elsewhere we do not believe. In other localities a few or even many of the above species, spread over a broad front could and probably would pass through unobserved. Here it is different; the conformation of the land brings these earliest few migrants to a small focus, where observation of them is easier.

The presence of the above species in late summer is hardly less interesting than the absence of others at the same time. The Northern Yellow-throat is common during the spring months but is scarce in late August or absent altogether. We observed none Aug. 15, 1908, or from the 24th on in 1907. Early September usually brings in great numbers again. Consulting our S. E. Michigan data we should say that there was

no migrational activity in this species until the beginning of October but this experience at the Point indicates that they start moving the first of September and what seems to us like a stationary population is, in reality, a steady stream of migrants.

Like data points in the same direction with other species. Blue Jays as a species are permanent residents yet the middle of October, 1906, we saw them in large numbers crossing the lake. Blackbirds also migrate heavily from the last of August or earlier while the species seems to remain stationary in point of numbers until late in the fall, and they sometimes winter with us. Cedar Waxwings we have always suspected to be migratory though generally listed as not so; but we were hardly prepared to find them migrating the first of September; or the Robins and Bluebirds the middle of October, nearly a month before they are, as a species, due to leave us.

The Carolinian tendencies of the fauna have been previously enlarged upon in their botanical relations in the Description. The same tendency is markedly shown in the ornithology as the following list of species will demonstrate:

Cardinal.—common resident.

Carolina Wren.—regular and not uncommon resident. On our last visit almost abundant.

Yellow-breasted Chat.—common summer resident.

Blue-gray Gnatcatcher.—common migrant and likely regular breeder.

Orchard Oriole.—very common migrant and without doubt a common breeder.

Cerulean Warbler.—common migrant and likely breeds.

Besides these there are three other species of a more or less southern general distribution which were once common but are now rare or extinct on the Point. Their decrease, however, does not seem to be due to local causes as the same might be said of them in other surrounding territory.

Lark Sparrow, Grasshopper Sparrow and Dickcissel.

To this list of Carolinian birds might be added two stragglers —Mockingbird and Chuck-wills-widow.

The latter is of course a wanderer pure and simple, but the former had every indication of being perfectly at home and there is no apparent reason why it might not have formed a permanent colony, especially as there is another old report of the bird from the not distant locality of Chatham.

Taking into consideration the irregular and intermittent character of the work done on the Point, the number of rarities there taken is significant. Such rare, irregular, or wandering species are far more apt to be seen on a main branch of the migrational current than along a small side stream or dead water bayou. In this list can be placed:

Buff-breasted Sandpiper, Hudsonian Godwit, Chuck-wills-widow, Henslow's Sparrow, Blue-winged Warbler, Prairie Warbler, Short-billed Marsh Wren, Mockingbird, Olive-sided Flycatcher, Duck Hawk, and Pigeon Hawk. Of these the Chuck-wills-widow and the Blue-winged Warbler form primal records for the Province and the Mockingbird the only absolutely incontestable one for that species. All these throw into prominence the importance of the locality as an ornithological observatory.

The absence of some species has been of almost as much interest as the presence of others. Among the most striking of these are the following:

Yellow-throated Vireo.

This is a very common summer resident and migrant along the whole southeastern shore of Michigan. It is rare on the Point and has only been noted occasionally. It increases in numbers again to the eastward and seems to reach its centre of abundance in Ontario about London where, however, it is but fairly common.

Tufted Titmouse.

This species is a more or less regular and not uncommon fall, spring, and winter visitor along the Michigan boundary line as far as the St. Clair Flats. On Belle Isle, in the Detroit river opposite the City of Detroit, it occurs commonly every winter, and likely nests sparingly all over this district, though, so far an Ann Arbor record (Auk, 1908-322) is the only affirmative data we have on the subject. As yet there are no Ontario records for the species at all, although it must almost necessarily sometimes wander over across the international bound-

ary line. It is common on the Ohio shore across from Pelee, and why it has not crossed over with the Cardinal and Carolina Wren is one of the interesting problems of distribution.

Green-crested Flycatcher.

The Green-crested Flycatcher has much the same general distribution on the American side of the line as the Tufted Titmouse, and like it, has never been taken in Ontario. There are ample and most promising looking woods for it all over the Point but in spite of a close scrutiny of almost every small flycatcher seen, it has escaped our observation so far.

Golden-winged Warbler.

This is one of the commonest summer residents among the warblers on the Michigan side of the International line, and an almost abundant migrant, but we have met with it but very sparingly at the Point.

On the other hand, there are cases where the tables are reversed, and there are a number of species more or less common on the Point that we, on the Michigan side of the line, seldom see. We will leave out most of the shore birds as they are plainly governed by the topographical surroundings, naming only:

Golden and Black-bellied Plover.

These have been mentioned before by the writers. (Auk 1907, p. 140). We have met the Golden Plover twice on the Point. There are several good records for the species in numbers on the Ontario side of Lake Ontario, but very few of them for adjoining Michigan localities. The Black-bellied is a little more common with us but is still but an irregular straggler; while at the Point it is both regular and common.

American Goshawk.

This species we have also enlarged upon in this connection in the before-cited paper. The flight of this species the fall of 1906, that extended over eastern Ontario and invaded Point Pelee in considerable numbers, seemed hardly to extend beyond the International boundary in Michigan, but few birds penetrating beyond the first tier of counties.

Black-poll Warbler.

This was also treated of in the before-mentioned citation.

This species at the Point is a common spring and fall migrant. On the Michigan side, in our locality, it is a common fall migrant but very rare in spring. Up to 1907, indeed, it had never been taken in this vicinity. However, May 19 of that year one was taken by Taverner at Pearl Beach, near the St. Clair Flats, and the succeeding year another May 16 at Detroit.

White-crowned Sparrow.

We have invariably found the White-crowned Sparrow a common spring and fall migrant at the Point, but of late years, since 1904, it has been either rare or absent in our notes along the Michigan side of the line. It was more common this last spring of 1908, but in nothing like the numbers we have been accustomed to see in the past.

These are rather peculiar cases and seem to indicate that the source of the Point Pelee avifauna is distinct from that of the adjoining Michigan stations. The water chain joining lakes Huron and Erie seems to form a sharp dividing line between the two areas. This in the fall migrations is easily explained by the plausible theory that the two sections are traversed by migrational streams from opposite sides of Lake Huron. The dissimilarity of the spring migrants and summer residents can be explained in no such obivious manner. According to more or less currently accepted theories of Glacial drainage migration routes, it may be that Southeastern Michigan receives its migrant life by way of the old Maumee glacial drainage channels while Pelec is supplied by other routes; perhaps continuing along the Ohio river, past the mouth of the Wabash and up the Sicoto to the head waters of the Sandusky, then down that stream to Lake Erie and so across to Point Pelee. This is as vet purely conjectural through lack of further data on the subject. It suggests, however, an important line of work and one that is well worth following up.

And now the end of the work before us has come. That which was begun as a short informal list has, thanks to the generous editor of the Bulletin and the forebearance of the reader, lengthened out far beyond the original intentions of the writers as the data increased and the importance of the locality seemed to demand. No one is better aware of the manifold shortcom-

ings of the work than we are. With the time, means, and ability at our disposal we have done our best, and if we have only succeeded in calling the attention of some of the ornithological public to what seems to us to be one of the most promising fields of migrational and distributional investigation we shall feel that we have accomplished our end.

